

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Joseph Pugach	:	Patent Application
		:	
Assignee:	Pressure Chemical Company	:	Conversion of CO to CO ₂
		:	
Serial No.	10/806,837	:	
		:	
Filing Date:	03/23/2004	:	
		:	Attorney Docket No. 060051
Confirmation No.	4239	:	

**DECLARATION
OF
Joseph Pugach 37 CFR 1.132**

March 16, 2007

I, Joseph Pugach, the inventor of the above identified application declare as follows:1. **EDUCATION**

- (a) BS in chemistry, MIT, 1958.
- (b) PhD in chemistry, Columbia University, 1963

2. **EXPERIENCE**

- (a) Worked at Halcon International doing product and catalyst research and development for 22 years.
- (b) Worked at Aristech Chemical as manager of research for product development for 13 years.
- (c) Worked at Pressure Chemical as Staff Scientist for 5 years.
- (d) Have consulted for Metabolix, a biotech firm, for 7 years.

3. **I HAVE REVIEWED:**

- (a) Patent Application No 10/806,837;
- (b) DE 198 36 585 to Plzak ("PLZAK");

4. **THE LEVEL OF SKILL OF ONE SKILLED IN THIS ART**

In my opinion, a person of ordinary skill in this art would be a person with a Chemistry degree having ten (10) years work experience.

5. **FACTUAL STATEMENTS SHOWING NONOBVIOUSNESS**

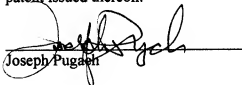
- (a) PLZAK does not require an activation step as required by the claims of Patent Application No. 10/806,837.
- (b) The claims of Patent Application No. 10/806,837 require the solid catalyst to have a size of 0.85mm to 4.25mm.
- (c) A person of ordinary skill in the art would expect that if a person were to use applicant's size catalyst it would work within 2 hours of being placed in the reactor without an activation step. The table on page 15 of the PLZAK translation shows item (a) which indicates that results in PLZAK are obtained after 2 hours. Applicant's invention would only produce water if it were in the reactor for only 2 hours without the activation step. The Applicant's catalyst must be activated for at least 12 and this limitation is required by the claims.
- (d) PLZAK shows results in the Table on page 15 in the form of rates. The catalyst as taught by PLZAK has a rate 4 times faster than that prepared from the literature of Applied catalysis A: General 134 (1996). See comparison example 1 vs. example 1 and example 2 in the table on page 15 of the PLZAK translation. Also PLZAK on page 13 indicated that the results using the

method in literature are better than the literature results but still unsatisfactory because they are far less than the other PLZAK results. Using the activation step and the catalyst size required by the claims in Application No. 10/806,837 the rates were about the same for literature method as well as the method taught by PLZAK.

- (e) Page 9 of the specification of Application No. 10/806,837 shows that by using our claimed method the CO conversion for both methods was at least 90% indicating that it works equally as well under literature method described in Applied catalysis A: General 134 (1996).

DECLARATION

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.


Joseph Puga

Date: 3/21/07